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SEQUENCE LISTING

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<120> NOVEL PEPTIDES AND PRODUCTION AND USE THEREOF

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<150> PCT/JP97/01911
<151> 1997-06-05

<160> 114

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35 40 45

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35 40 45

Glu Ala Arg Glu Val Ala Arg Arg Gln Glu Gly Ala Pro Pro Gln Gln
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65 70 75 80

Phe Ser Ser Cys Lys
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20 25 30

Glu His Met Gln Glu Ala Ala Gly Ile Arg Lys Ser Ser Leu Leu Thr
35 40 45

Phe Leu Ala Trp Trp Phe Glu Trp Thr Ser Gln Ala Ser Ala Gly Pro
50 55 60

Leu Ile Gly Glu Glu Ala Arg Glu Val Ala Arg Arg Gln Glu Gly Ala
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85 90 95

Phe Trp Lys Thr Phe Ser Ser Cys Lys
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20 25 30

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35 40 45

Phe Leu Ala Trp Trp Phe Glu Trp Thr Ser Gln Ala Ser Ala Gly Pro
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<210> 16
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ttctggaaga ccttctcctc ctgcaaa 87

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tgcaaa 186

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tgcaaa 186

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agtgccgggc ccctcatagg agaggaagct cgggaggtgg ccaggcggca ggaaggcgca 180

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ttctcctcct gcaaa 255

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agtgccgggc ccctcatagg agaggaagct cgggaggtgg ccaggcggca ggaaggcgca 180

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ttctcctcct gcaaa 255

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ataaggaaaa gcagcctcct gactttcctc gcttggtggt ttgagtggac ctcccaggcc 180

agtgccgggc ccctcatagg agaggaagct cgggaggtgg ccaggcggca ggaaggcgca 240

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ttctcctcct gcaaa 315

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agtgccgggc ccctcatagg agaggaagct cgggaggtgg ccaggcggca ggaaggcgca 240

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<210> 26
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cccctcatag gagaggaagc tcgggaggtg gccaggcgg 99

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<212> DNA
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ataaggaaa 69

<210> 28
<211> 60
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<211> 264
<212> DNA
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Sub E22 Cont

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ccccccccagc aatctgcgcg ccgg 264

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<210> 32
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1 5 10

<210> 33
<211> 42
<212> DNA
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<400> 33
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<210> 34
<211> 42
<212> DNA
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Sub E22 cont

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<211> 16
<212> PRT
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<400> 35
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<210> 36
<211> 14
<212> PRT
<213> Homo sapiens

<400> 36
Met Pro Cys Arg Asn Phe Phe Trp Lys Thr Phe Ser Ser Cys
1 5 10

<210> 37
<211> 12
<212> PRT
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<400> 37
Cys Arg Asn Phe Phe Trp Lys Thr Phe Ser Ser Cys
1 5 10

<210> 38
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic amino acid

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Lys

<210> 39
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
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Sub E32 Cont

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<212> PRT
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<210> 41
<211> 16
<212> PRT
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<223> Description of Artificial Sequence: Synthetic

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<211> 14
<212> PRT
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<210> 43
<211> 12
<212> PRT
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<210> 44
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Lys

<210> 45
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<220>
<223> Description of Artificial Sequence: Synthetic amino acid

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1 5 10 15

<210> 46
<211> 13
<212> PRT
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<210> 47
<211> 16
<212> PRT
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<223> Description of Artificial Sequence: Synthetic amino acid

<400> 47
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<210> 48
<211> 14
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<210> 49
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<210> 50
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<212> PRT
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<223> Description of Artificial Sequence: Synthetic amino acid

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Lys

<210> 51
<211> 15
<212> PRT
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<220>
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<210> 52
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<212> PRT
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<212> PRT
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<212> PRT
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<210> 56
<211> 29
<212> PRT
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Cys Lys Asn Phe Phe Trp Lys Thr Phe Ser Ser Cys Lys
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<212> PRT
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Cys Arg Asn Phe Phe Trp Lys Thr Phe Thr Ser Cys Lys
20 25

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Cys Lys Asn Phe Phe Trp Lys Thr Phe Thr Ser Cys Lys
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<211> 28
<212> PRT
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Cys Lys Asn Phe Phe Trp Lys Thr Phe Ser Ser Cys
20 25

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<220>
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Cys Arg Asn Phe Phe Trp Lys Thr Phe Thr Ser Cys
20 25

<210> 61
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<212> PRT
<213> Artificial Sequence

<220>
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Cys Lys Asn Phe Phe Trp Lys Thr Phe Thr Ser Cys
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<212> DNA
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<210> 63
<211> 42
<212> DNA
<213> Homo sapiens

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<210> 64
<211> 36
<212> DNA
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<210> 65
<211> 51
<212> DNA
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<211> 39
<212> DNA
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Sul E22 cont

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<210> 69
<211> 45
<212> DNA
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<400> 69
atgccctgca araacttctt ctggaagacc ttctcctcct gcaaa 45

<210> 70
<211> 39
<212> DNA

<213> Artificial Sequence

<220>
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<210> 71
<211> 51
<212> DNA
<213> Artificial Sequence

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<210> 72
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<223> "n" may be A, T, C, G, other or unknown

Sub E22 cont

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<210> 73
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<213> Artificial Sequence

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<223> "n" may be A, T, C, G, other or unknown

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tgcaggaact tcttctggaa gaccttcacn tcctgcaaa 39

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<212> DNA
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<223> "n" may be A, T, C, G, other or unknown

<400> 74
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<210> 75
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<223> "n" may be A, T, C, G, other or unknown

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<212> DNA
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<400> 82
tgcaaraact tcttctggaa gaccttcacn tcctgc 36

<210> 83
<211> 87
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 83
caggaaggcg cacccccccа gcaatccgcg cgccgggaca gaatgccctg caaraacttc 60

ttctggaaga ccttctcctc ctgcaaa 87

<210> 84
<211> 87
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 84
caggaaggcg cacccccccа gcaatctgcg cgccgggaca gaatgccctg caaraacttc 60

ttctggaaga ccttctcctc ctgcaaa 87

<210> 85
<211> 87
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<220>
<223> "n" may be A, T, C, G, other or unknown

<400> 85
caggaaggcg cacccccccа gcaatccgcg cgccgggaca gaatgccctg caggaacttc 60

ttctggaaga ccttcacntc ctgcaaa 87

<210> 86
<211> 87
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<220>
<223> "n" may be A, T, C, G, other or unknown

<400> 86
caggaaggcg cacccccca gcaatctgcg cgccgggaca gaatgccctg caggaacttc 60

ttctggaaga ccttcacntc ctgcaaa 87

<210> 87
<211> 87
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<220>
<223> "n" may be A, T, C, G, other or unknown

<400> 87
caggaaggcg cacccccca gcaatccgcg cgccgggaca gaatgccctg caaraacttc 60

ttctggaaga ccttcacntc ctgcaaa 87

Sub E22 CONT

<210> 88
<211> 87
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<220>
<223> "n" may be A, T, C, G, other or unknown

<400> 88
caggaaggcg cacccccca gcaatctgcg cgccgggaca gaatgccctg caaraacttc 60

ttctggaaga ccttcacntc ctgcaaa 87

<210> 89
<211> 84
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 89
caggaaggcg cacccccca gcaatccgcg cgccgggaca gaatgccctg caaraacttc 60

ttctggaaga ccttctcctc ctgc 84

<210> 90
<211> 84
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 90
caggaaggcg cacccccca gcaatctgcg cgccgggaca gaatgccctg caaraacttc 60

ttctggaaga ccttctcctc ctgc 84

<210> 91
<211> 84
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<220>
<223> "n" may be A, T, C, G, other or unknown

<400> 91
caggaaggcg cacccccca gcaatccgcg cgccgggaca gaatgccctg caggaacttc 60

ttctggaaga ccttcacntc ctgc 84

<210> 92
<211> 84
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<220>
<223> "n" may be A, T, C, G, other or unknown

<400> 92
caggaaggcg cacccccca gcaatctgcg cgccgggaca gaatgccctg caggaacttc 60

ttctggaaga ccttcacntc ctgc 84

<210> 93
<211> 84
<212> DNA
<213> Artificial Sequence

<220>
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<223> "n" may be A, T, C, G, other or unknown

<400> 93
caggaaggcg caccccccca gcaatccgcg cgccgggaca gaatgccctg caaraacttc 60

ttctggaaga ccttcacntc ctgc 84

<210> 94
<211> 84
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<220>
<223> "n" may be A, T, C, G, other or unknown

<400> 94
caggaaggcg caccccccca gcaatctgcg cgccgggaca gaatgccctg caaraacttc 60

ttctggaaga ccttcacntc ctgc 84

<210> 95
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 95
ggtcgacctc agctaggatg ttccccaatg 30

<210> 96
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 96
ggtcgacccg ggctcagagc gtcgtgat 28

<210> 97
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 97
ggtcgacacc atggacatgg cggatgag 28

<210> 98
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 98
ggtcgacagt tcagatactg gtttgg 26

<210> 99
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 99
ggtcgacctc aaccatggac atgcttcatc 30

<210> 100
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 100
ggtcgacttt ccccaggccc ctacaggta 29

<210> 101
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 101
ggctcgagtc accatgagcg cccctcg 28

<210> 102
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 102
gggctcgagc tcctcagaag gtggtgg 27

<210> 103
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 103
ggtcgaccac catggagccc ctgttccc 28

<210> 104
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 104
ccgtcgacac tctcacagct tgctgg 26

<210> 105
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 105
acaagatgcc attgtccccc ggcctcct 28

<210> 106
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 106
ttcaggtctg taattaaact tgcgtga 27

<210> 107
<211> 368
<212> DNA
<213> Homo sapiens

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 107
acaagatgcc attgtccccc ggcctcctgc tgctgctgct ctccggggcc acggccaccg 60

ctgccctgcc cctggagggt ggccccaccg gccgagacag cgagcatatg caggaagcgg 120

caggaataag gaaaagcagc ctcctgactt tcctcgcttg gtggtttgag tggacctccc 180

aggccagtgc cgggcccctc ataggagagg aagctcggga ggtggccagg cggcaggaag 240

gcgcaccccc ccagcaatcc gcgcgccggg acagaatgcc ctgcaggaac ttcttctgga 300

agaccttctc ctcctgcaaa taaaacctca cccatgaatg ctcacgcaag tttaattaca 360

gacctgaa 368

<210> 108
<211> 366
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (4)..(318)

<400> 108
aag atg cca ttg tcc ccc ggc ctc ctg ctg ctg ctg ctc tcc ggg gcc 48
Met Pro Leu Ser Pro Gly Leu Leu Leu Leu Leu Leu Ser Gly Ala
1 5 10 15

acg gcc acc gct gcc ctg ccc ctg gag ggt ggc ccc acc ggc cga gac 96
Thr Ala Thr Ala Ala Leu Pro Leu Glu Gly Gly Pro Thr Gly Arg Asp
20 25 30

agc gag cat atg cag gaa gcg gca gga ata agg aaa agc agc ctc ctg 144
Ser Glu His Met Gln Glu Ala Ala Gly Ile Arg Lys Ser Ser Leu Leu
35 40 45

act ttc ctc gct tgg tgg ttt gag tgg acc tcc cag gcc agt gcc ggg 192
Thr Phe Leu Ala Trp Trp Phe Glu Trp Thr Ser Gln Ala Ser Ala Gly
50 55 60

ccc ctc ata gga gag gaa gct cgg gag gtg gcc agg cgg cag gaa ggc 240
Pro Leu Ile Gly Glu Glu Ala Arg Glu Val Ala Arg Arg Gln Glu Gly
65 70 75

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gca ccc ccc cag caa tcc gcg cgc cgg gac aga atg ccc tgc agg aac   288
Ala Pro Pro Gln Gln Ser Ala Arg Arg Asp Arg Met Pro Cys Arg Asn
 80                  85                  90                  95

ttc ttc tgg aag acc ttc tcc tcc tgc aaa taaaacctca cccatgaatg     338
Phe Phe Trp Lys Thr Phe Ser Ser Cys Lys
            100                 105

ctcacgcaag tttaattaca gacctgaa                                    366
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<210> 109
<211> 105
<212> PRT
<213> Homo sapiens

<400> 109

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Met Pro Leu Ser Pro Gly Leu Leu Leu Leu Leu Leu Ser Gly Ala Thr
  1               5                  10                  15

Ala Thr Ala Ala Leu Pro Leu Glu Gly Gly Pro Thr Gly Arg Asp Ser
             20                  25                  30

Glu His Met Gln Glu Ala Ala Gly Ile Arg Lys Ser Ser Leu Leu Thr
         35                  40                  45

Phe Leu Ala Trp Trp Phe Glu Trp Thr Ser Gln Ala Ser Ala Gly Pro
     50                  55                  60

Leu Ile Gly Glu Glu Ala Arg Glu Val Ala Arg Arg Gln Glu Gly Ala
 65                  70                  75                  80

Pro Pro Gln Gln Ser Ala Arg Arg Asp Arg Met Pro Cys Arg Asn Phe
                 85                  90                  95

Phe Trp Lys Thr Phe Ser Ser Cys Lys
            100                 105
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Sub E22 cont

<210> 110
<211> 318
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)..(315)

<400> 110

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atg cca ttg tcc ccc ggc ctc ctg ctg ctg ctg ctc tcc ggg gcc acg   48
Met Pro Leu Ser Pro Gly Leu Leu Leu Leu Leu Leu Ser Gly Ala Thr
  1               5                  10                  15

gcc acc gct gcc ctg ccc ctg gag ggt ggc ccc acc ggc cga gac agc   96
Ala Thr Ala Ala Leu Pro Leu Glu Gly Gly Pro Thr Gly Arg Asp Ser
             20                  25                  30
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gag cat atg cag gaa gcg gca gga ata agg aaa agc agc ctc ctg act   144
Glu His Met Gln Glu Ala Ala Gly Ile Arg Lys Ser Ser Leu Leu Thr
          35                  40                  45

ttc ctc gct tgg tgg ttt gag tgg acc tcc cag gcc agt gcc ggg ccc   192
Phe Leu Ala Trp Trp Phe Glu Trp Thr Ser Gln Ala Ser Ala Gly Pro
      50                  55                  60

ctc ata gga gag gaa gct cgg gag gtg gcc agg cgg cag gaa ggc gca   240
Leu Ile Gly Glu Glu Ala Arg Glu Val Ala Arg Arg Gln Glu Gly Ala
 65                  70                  75                  80

ccc ccc cag caa tct gcg cgc cgg gac aga atg ccc tgc agg aac ttc   288
Pro Pro Gln Gln Ser Ala Arg Arg Asp Arg Met Pro Cys Arg Asn Phe
                 85                  90                  95

ttc tgg aag acc ttc tcc tcc tgc aaa taa                          318
Phe Trp Lys Thr Phe Ser Ser Cys Lys
            100                 105
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<210> 111
<211> 105
<212> PRT
<213> Homo sapiens

<400> 111
Met Pro Leu Ser Pro Gly Leu Leu Leu Leu Leu Ser Gly Ala Thr
  1   5   10   15

Ala Thr Ala Ala Leu Pro Leu Glu Gly Gly Pro Thr Gly Arg Asp Ser
            20   25   30

Glu His Met Gln Glu Ala Ala Gly Ile Arg Lys Ser Ser Leu Leu Thr
        35   40   45

Phe Leu Ala Trp Trp Phe Glu Trp Thr Ser Gln Ala Ser Ala Gly Pro
    50   55   60

Leu Ile Gly Glu Glu Ala Arg Glu Val Ala Arg Arg Gln Glu Gly Ala
65   70   75   80

Pro Pro Gln Gln Ser Ala Arg Arg Asp Arg Met Pro Cys Arg Asn Phe
                85   90   95

Phe Trp Lys Thr Phe Ser Ser Cys Lys
            100   105

<210> 112
<211> 105
<212> PRT
<213> Homo sapiens

<400> 112
Met Pro Leu Ser Pro Gly Arg Asp Ser Glu His Met Gln Glu Ala Ala
  1   5   10   15

Gly Ile Arg Lys Ser Ser Glu Ala Arg Glu Val Ala Arg Arg Gln Glu
20 25 30

Gly Ala Pro Pro Gln Gln Ser Gly Leu Leu Leu Leu Leu Leu Ser Gly
35 40 45

Ala Thr Ala Thr Ala Ala Leu Pro Leu Glu Gly Gly Pro Thr Leu Leu
50 55 60

Thr Phe Leu Ala Trp Trp Phe Glu Trp Thr Ser Gln Ala Ser Ala Gly
65 70 75 80

Pro Leu Ile Gly Glu Ala Arg Arg Asp Arg Met Pro Cys Arg Asn Phe
85 90 95

Phe Trp Lys Thr Phe Ser Ser Cys Lys
100 105

<210> 113
<211> 112
<212> PRT
<213> Rattus

<400> 113
Met Gly Gly Cys Ser Thr Arg Gly Lys Arg Pro Ser Pro Thr Gly Gln
1 5 10 15

Asp Ser Val Gln Asp Ala Thr Gly Gly Arg Arg Thr Gly Gly Thr Pro
20 25 30

Glu Leu Ser Lys Arg Gln Glu Arg Pro Pro Leu Gln Gln Pro Ala Leu
35 40 45

Ser Leu Leu Leu Leu Leu Leu Leu Ser Gly Ile Ala Ala Ser Ala Leu
50 55 60

Pro Leu Glu Ser Gly Leu Leu Thr Phe Leu Ala Trp Trp His Glu Trp
65 70 75 80

Ala Ser Gln Asp Ser Ser Ser Thr Ala Phe Glu Gly Pro His Arg Asp
85 90 95

Lys Lys Pro Cys Lys Asn Phe Phe Trp Lys Thr Phe Ser Ser Cys Lys
100 105 110

<210> 114
<211> 116
<212> PRT
<213> Rattus

<400> 114
Met Leu Ser Cys Arg Leu Gln Cys Ala Leu Ala Ala Leu Cys Ile Val
1 5 10 15

Leu Ala Ala Thr Gly Lys Gln Glu Leu Ala Lys Tyr Phe Leu Ala Glu
20 25 30

Leu Leu Glu Met Arg Leu Glu Leu Gln Arg Ser Ala Asn Ser Asn Pro
35 40 45

Ala Met Ala Ala Leu Gly Gly Val Thr Gly Ala Pro Ser Asp Pro Arg
50 55 60

Leu Arg Gln Phe Leu Gln Lys Ser Leu Ala Ser Glu Pro Asn Gln Thr
65 70 75 80

Glu Asn Asp Ala Leu Glu Pro Glu Asp Leu Pro Gln Ala Ala Glu Gln
85 90 95

Asp Pro Arg Glu Arg Lys Ala Gly Cys Lys Asn Phe Phe Trp Lys Thr
100 105 110

Phe Thr Ser Cys
115